

Appln No. 09/599,057

Amdt dat October 21, 2003

Reply to Office action of July 21, 2003

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Presently Amended) A cathode ray tube comprising:
  - a panel, a phosphor screen being arranged on an inner surface of the panel;
  - a funnel having a deflection yoke on an outer periphery thereof, including:
    - a body connected to the panel, and
    - a cone connected to the body, the cone having an outer periphery; and
    - a neck, connected to the cone of the funnel, having an electron gun disposed therein,
  - wherein the cone has a deflection power reducing shape formed in such a manner that the outer periphery of a portion of the cone has a predetermined curvature which is contiguous to the body and has a shape of an arc on a range from an end of the cone at the neck to a point on the outer priphery of the cone, where said arc has, ~~wherein the deflection power reducing shape is formed to have~~ a length  $0.25 \times L$  measured along an axis of symmetry of the cathode ray tube from an the end of the cone at the neck, where L is an entire length of the cone from the neck to the body measured along an the axis of symmetry of the cathode ray tube.

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2. (Presently Amended) The cathode ray tube as recited in claim 1, wherein the deflection power reducing shape is formed in such a manner that the outer periphery of the cone from the end of the cone at the neck to a length of  $0.25 \times L$  from the end of the cone at the neck, as viewed in a cross section perpendicular to the axis of symmetry has a shape of an arc with a radius satisfying the following conditions:

$$|Cz| < 4.5\text{mm}$$

$$25\text{mm} < r1 < \del{5\text{mm}} \underline{50\text{mm}}$$

where Cz is a coordinate of a center for the arc in the axis of symmetry direction from the end of the cone at the neck; and

r1 is the radius of curvature of the arc.

3. (Previously Presented) The cathode ray tube as recited in claim 1, wherein the deflection power reducing shape is formed in such a manner that the outer periphery of the cone from the end of the cone at the neck to a length of  $0.25 \times L$  from the end of the cone at the neck, as viewed in a cross section perpendicular to the axis of symmetry has a curvature satisfying the following condition:

$$0.26 < R < 0.43$$

where R is an average variation of height for all points on the curvature, measured from the axis of symmetry to each point on the curvature.